European Centre of Expertise (ECE) in the field of labour law, employment and labour market policy

Labour Market Policy Thematic Review 2018: An in-depth analysis of the emigration of skilled labour

Ireland

Written by Seamus McGuinness, Adele Whelan, Judith Delaney & Paul Redmond

January 2018

EUROPEAN COMMISSION

Directorate DG Employment, Social Affairs and Inclusion

Unit B.2 – Working Conditions

Contact: Krzysztof Bandasz

E-mail: Krzysztof.BANDASZ@ec.europa.eu

European Commission

B-1049 Brussels

European Centre of Expertise (ECE) in the field of labour law, employment and labour market policy

Labour Market Policy Thematic Review 2018: An in-depth analysis of the emigration of skilled labour

Ireland

Directorate-General for Employment, Social Affairs and Inclusion

European Centre of Expertise (ECE)

January, 2018

This publication has received financial support from the European Union Programme for Employment and Social Innovation "EaSI" (2014-2020).

Luxembourg: Publications Office of the European Union, 2018

PDF ISBN:978-92-79-88862-5 doi:10.2767/591979 KE-04-18-639-EN-N

Table of Contents

1 Introduction: the demographic and labour market situation in Ireland

In this section we use the latest available labour market data from the first quarter of 2017 from the Quarterly National Household Survey (QNHS) and the Census of Population (CSO, 2016) to describe the current position of the Irish labour market. Table 1 outlines the main labour market and employment related statistics for the Irish economy. Ireland was particularly affected by the recession which began in 2008; unemployment rates soared as high as 15 % in 2011-12. But the economy has recently improved, with the unemployment rate in the first quarter of 2017 at 6.7 %, its lowest rate for nine years. The percentage of employees working part-time is 22.4 %, down from 23.8 % in Quarter 1 2016, with 7.1 % of employees on temporary contracts, down from 7.8 % in Quarter 1 2016.

Table 1 also presents descriptive statistics for the highest educational qualifications. Taking the adult population as a whole (those aged 25-64), Ireland has a highly educated population with 44 % educated to tertiary level and 37 % educated to upper-secondary or post-secondary level. The percentage of those educated to tertiary level in Ireland is above the OECD average at 35 %.[1]

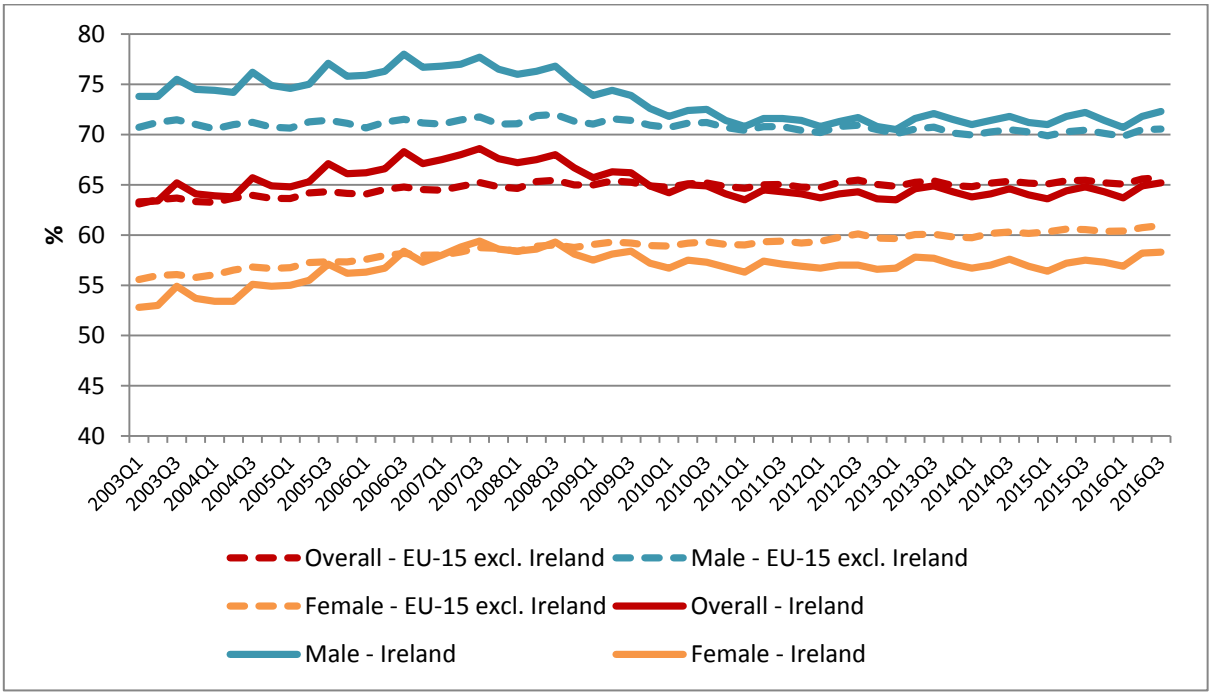
Table 1. Labour Market Indicators (Quarter 1, 2017)

	%
Unemployment rate (15-74 years)	6.7
Labour force participation rate (15+ years)	59.8
Temporary employees	7.1
Part-time employees	22.4
Highest education level (aged 25-64 years)	
Lower secondary or below	19
Upper secondary or post-secondary (non-tertiary)	37
Tertiary (short cycle/bachelor/master/doctoral)	44

The labour force participation rate is 59.8 % and has stabilised in recent years, following a period of relative instability caused by the recession. Female participation rose rapidly in Ireland from 2003-2007 but declined during the last recession (Figure 1). It has since remained largely unchanged, despite a slightly improved rate for males. The overall participation rate currently compares very closely to the EU-15 average excluding Ireland at approximately 65 %.

[1] Internet: https://www.education.ie/en/Publications/Statistics/International-Statistical-Reports/Education-at-a-Glance-OECD-Indicators-2016-Briefing-Note.pdf

Figure 1. Labour Force Participation Rates, 2003 – 16 (%)



Source: EU Labour Force Survey

Notes: Expressed as a percentage of the population aged 15-74.

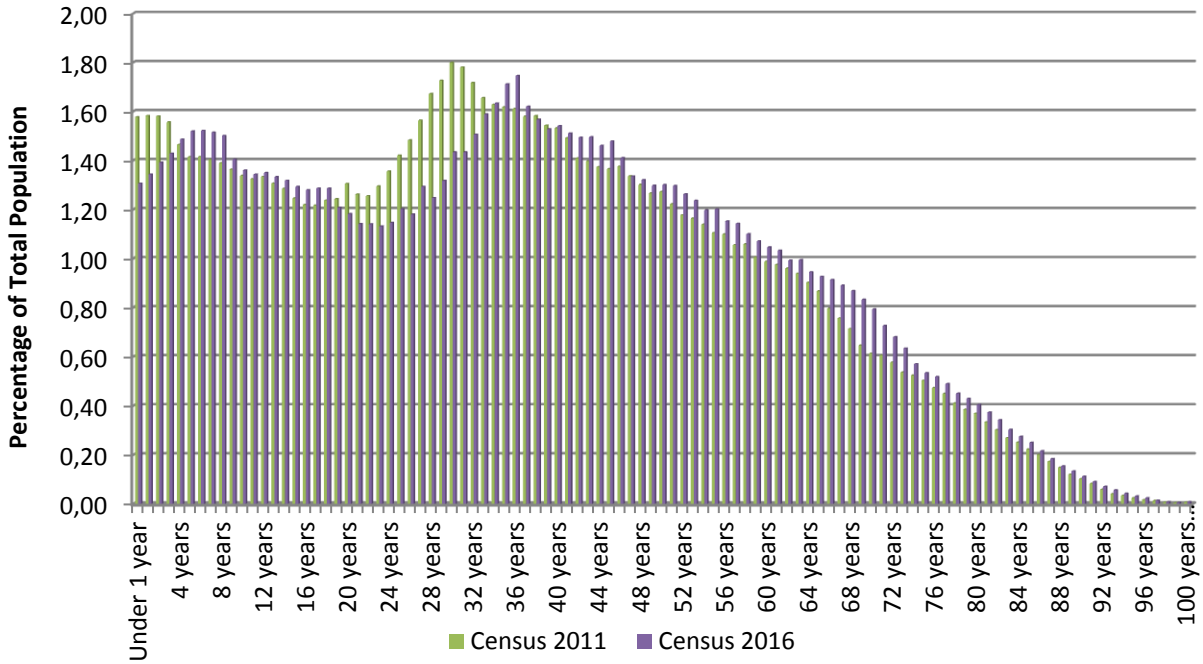
The population of Ireland has been getting steadily older since the 1980s. Figure 2 shows the age distribution of the population in 2011 and 2016. Overall, the population grew by 3.7 % from 4.59 million to 4.76 million between 2011 and 2016. In the most recent 2016 Census, 37.2 % of the population were 45 years or older compared to 34.4 % in 2011 and 27.6 % in 1986. The proportion of children and young adults aged less than 25 years old was 33.2 % in 2016. This has been steadily declining since the late 1970s when 47.9 % of the population were in this age cohort. People aged 25-44 years old made up 29.5 % of the population in 2016, down from 31.6 % in 2011. The average age of the population in 2016 was 37.4, up from 36.1 in 2011, an increase of 1.3 years.[2]

Of the three factors that determine population change, namely births, deaths and migration, from an Irish perspective, migration is by far the most influential, volatile and uncertain. The implication of Brexit on migration flows and labour market supply in Ireland have yet to be established. Figure 3 depicts the impact of the Great Recession on migration flows.[3] Prior to 2008, Ireland experienced positive net migration but following the onset of the Great Recession, emigration increased substantially resulting in large outflows of people and negative net migration. However, in 2016, more people arrived into the country than left – the first time this had occurred in seven years.

[2] Internet: http://www.cso.ie/en/releasesandpublications/ep/p-cp3oy/cp3/assr/

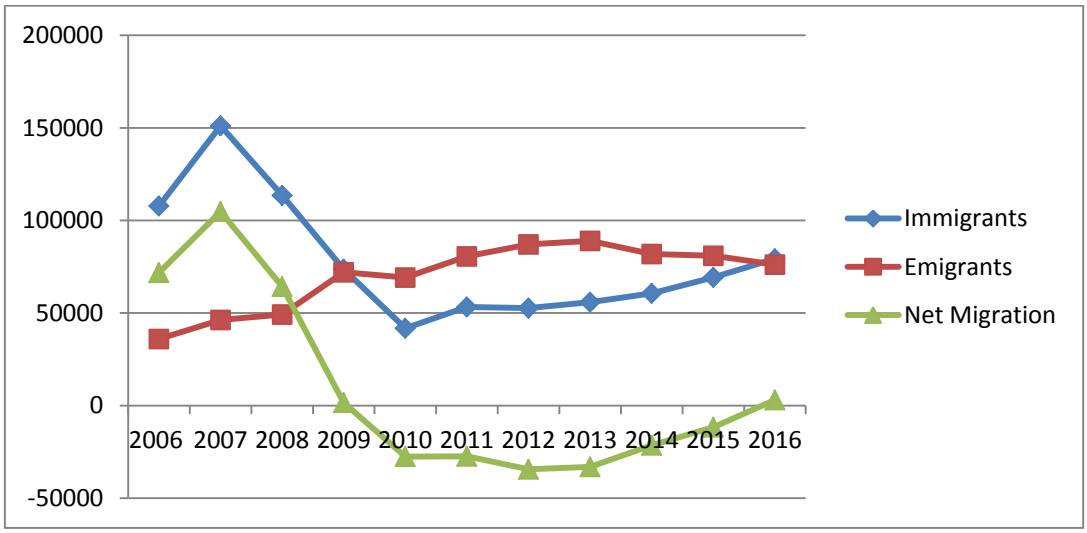
[3] See also Table A1 and Figure A1 which shows Eurostat data for emigration, immigration and net migration.

Figure 2. Age Structure of the Irish Population, 2011 and 2016



Source: CSO, Population and Migration Estimates, April 2016.

Figure 3. Net Migration 2006-16[4]



Source: CSO, Population and Migration Estimates using the 2016 Census.

[4] Please note preliminary results used from the Central Statistics Office (CSO) from the 2016 Census of Population showed a population of 4.76million persons using the de-facto definition of population, i.e. all persons present in the State on Census night. This differs by 84,000 from the population estimates contained in this release which have been compiled using the usual residence concept. It is planned that the CSO will revise these current usual residence estimates for the years 2012 to 2016 (i.e. the period over which this differential arose) following a thorough analysis of the final detailed Census results when they become available this year. The revision is most likely to be driven by migration as happened with the 2011 census. Internet: http://www.cso.ie/en/releasesandpublications/er/pme/populationandmigrationestimatesapril2016/ for more information.

While Figure 3 suggests that emigration is declining, Table 2 shows the migratory flows for Irish nationals. Although overall net migration was positive in 2016, there were still more Irish nationals leaving the country than returning. Furthermore, the majority (approximately 70 %) of those emigrating were aged between 15 and 44.

Table 2. Population and Migration Estimates for 2015 and 2016

Status	Year Ending	Apr-15	Apr-16
Immigration		69 300	79 300
Emigration		80 900	76 200
Net migration		-11 600	3 100
of which Irish nationals		-23 200	-10 700
Population		4 635 400	4 673 700

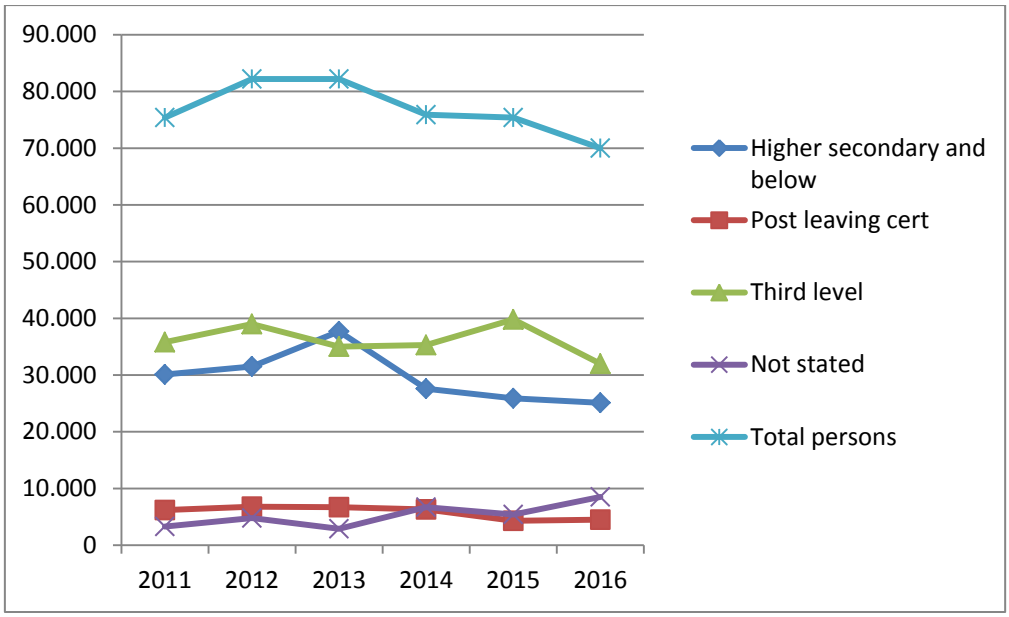
Source: CSO, Population and Migration Estimates using the 2016 Census.

2 Emigration of skilled labour

Figure 4 displays emigration flows by education status. Traditionally, those who emigrated were predominately unskilled, but between 2011 and 2016, the proportion of emigrants with a tertiary degree ranged from 43 % to 53 %, those with below secondary education ranged from 34 % to 46 % while those with post Leaving Certificate education (i.e. post-secondary education) represented between 6 % and 8 % of emigrants. During this period, those with tertiary education were more likely to emigrate, with 53 % of emigrants having a tertiary degree in 2015 compared to 34 % with secondary education and 6 % with post-secondary education.

In 2013, the proportion of those emigrating with at most secondary level education (46 %) exceeded those emigrating with a tertiary degree (43 %). However, overall, the majority of people migrating over the previous five years have had tertiary education. Therefore, Ireland has recently experienced a substantial outflow of highly skilled people, which would cause concern had this not been offset by a fairly substantial inflow of highly skilled immigrants (see Section 4). While not shown here, there were no major differences across gender, with high skilled men and women displaying very similar emigration patterns.

Figure 4. Estimated Emigration (aged 15 and over) classified by Educational Attainment, 2011 – 16



Source: CSO, Population and Migration Estimates using the 2016 Census.

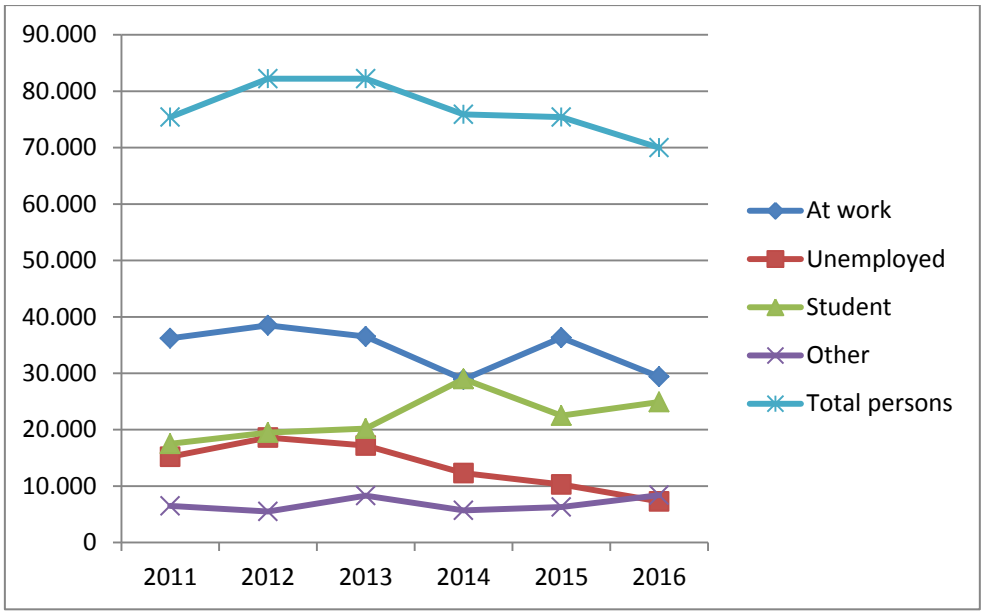
Notes: Higher Secondary and below corresponds to ISCED levels 1-3, post-leaving certificate corresponds to ISCED level 4 and tertiary corresponds to ISCED levels 5-8.

Figure 5 displays emigration flows by principal economic status. Most emigrants had a job prior to leaving – even in 2011 and 2012, when unemployment reached 15 % - almost 50 % of those emigrating had a job. It may have been that people were not well matched to their jobs, were under-employed, or moved for higher wages or career progression. On average, between 2011 and 2016, 44 % of emigrants had a job, 17 % were unemployed and almost 30 % were students.

In 2011, one-in-five emigrants were unemployed, almost half had a job, while about 23 % were students. This pattern has changed in more recent years, coinciding with the improving economy, with only 10 % of emigrants in 2016 being unemployed, 40 % were in employment and more than 35 % were students. The increasing tendency for students to emigrate on graduation is concerning, particularly if those who emigrate have graduated in skill intensive courses such as Science, Engineering, Mathematics and Technology. However, the available data do not allow a breakdown by field of study.

The National Skills Bulletin (EGSFN, 2016) points to skill shortages of Professionals and Associate Professionals in areas such as ICT, Science and Engineering, Financial Services, and Health using vacancy information from IrishJobs.ie and DSP Jobs Ireland. Using the SLMRU Recruitment Agency Survey, the National Skills Bulletin (EGSFN, 2016) reports an increase in the number of references made to difficult-to-fill vacancies compared to 2014, with the most references made to professional/associate professionals in IT, engineering, science, health and business and multilingual roles in areas such as sales/customer service and supply chain operations. But people with education and expertise in areas experiencing skill shortages may potentially be least likely to emigrate. Unfortunately, we do not have data on the expertise of emigrants.

Figure 5. Estimated Emigration (aged 15 and over) classified by Principal Economic Status, 2011 – 16



Source: CSO, Population and Migration Estimates using the 2016 Census.

The UK is the most likely destination for emigrants, unsurprising given its proximity, similar culture and that Irish residents can currently remain there indefinitely. Table 3 shows the distribution of emigrants by country of destination. More than 20 % of emigrants migrate to the UK with 35 % migrating to other European Member States. Irish emigrants also tend to migrate to Australia, Canada and New Zealand, not only because there is no language barrier but also because of working holiday visa agreements which allow Irish citizens to stay for up to two years.

In 2011, when Ireland was deep in economic recession, 17 % of emigrants migrated to Australia; but in 2015 and 2016, just less than 10 % went to Australia. This may be because the Australian economy managed to escape the Great Recession and was one of the few countries with positive labour demand during this time. However, now that most countries have recovered from the Great Recession, emigrants have more options available and may choose to go to countries closer to home.

Table 3. Emigration by Country of Destination for 2011-16 (%)

Year ending April	2011	2012	2013	2014	2015	2016
Destination						
UK	25	22	25	22	24	22
Rest of EU 15	17	17	13	20	19	21
Rest of EU 13	13	11	16	11	8	14
Australia	17	21	17	12	9	8
Canada	2	3	6	6	10	5
USA	6	10	7	8	7	9
Rest of World	20	16	16	21	23	21
Total	100	100	100	100	100	100
N (000s)	80.6	87.1	89	81.9	80.9	76.2

Source: CSO, Population and Migration Estimates using the 2016 Census.

Notes:
Rest of EU 15: countries before enlargement on 1 May 2004, (i.e. Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Spain, Sweden, Portugal). EU13: defined as 10 countries that joined the EU on 1 May 2004 (i.e. Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia), along with Bulgaria and Romania who joined on 1 January 2007 and Croatia who joined on 1 July 2013.

Census 2016 asked whether a person had ever lived abroad. Responses to this question provide important information on the year of arrival and country of previous residence. From those who responded, the results show that 56 648 Irish nationals returned home between 2012 and 2016. The UK was a popular country of previous residence accounting for 31 % of those people, approximately 10 % returned from other EU15 Member States, 10 % from the US, 2 % from the remaining EU13 Member States EU15 to EU28 states, followed by almost 50 % from the category 'other countries'.[5]

Table 4. Country of Previous Residence for Irish Nationals Returning in 2012-16 (%)

Country of Previous Residence	
UK	31
Rest of EU 15	10
Rest of EU 13	2
USA	9
Rest of World	48
Total	100
N (000s)	55 648

3 Emigration of skilled labour and its impact on domestic economies beyond the labour market

As stated, the Great Recession led to a big rise in unemployment in Ireland, peaking at almost 15 % in 2011. While approximately 40 % of emigrants in Ireland had a job (see Figure 5), most did not and therefore emigration helped to ease the burden on the social security system by re-emerging as a safety valve to reduce unemployment rates. Almost 20 % of emigrants worked in the construction sector in Ireland (Glynn et al., 2013), and some of these may represent lower skilled labour. However, a substantial number of newly qualified health and education professionals left Ireland due to a fall in the number of jobs available in these particular sectors. This was mainly attributed to the freeze on recruitment in the public sector which reduced the number of employees by 11 % (Roche et al., 2017). Almost 10 % of emigrants were from the health and social work sector and 5 % from the education sector. While the outflows of medical professions may have increased because of the recession, even without a recession, it is likely that there would still be emigration of this profession as

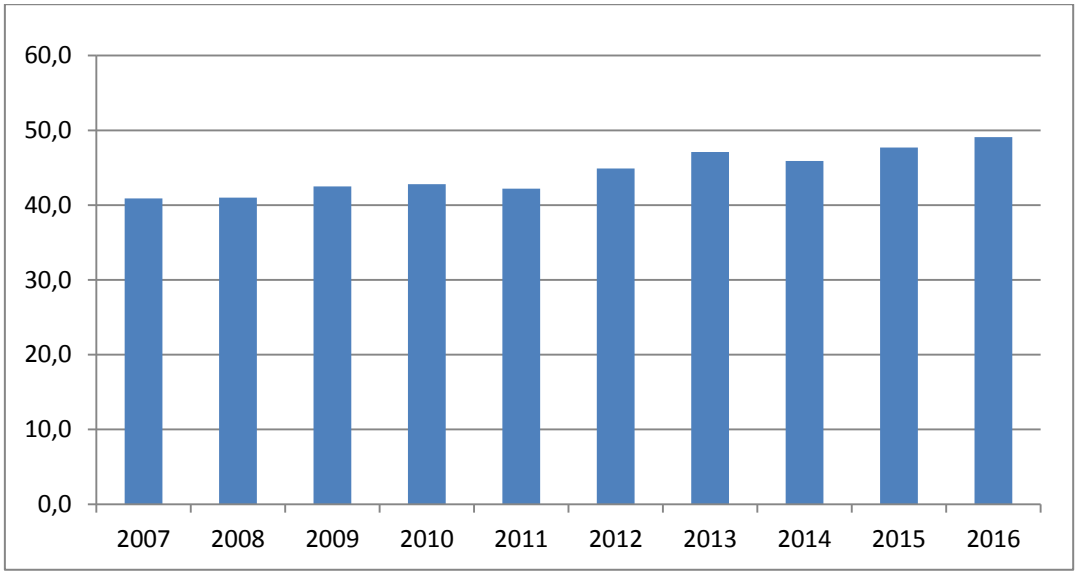
[5] Internet: http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=EY023&PLanguage=0

many reported dissatisfaction with their employment conditions (Humphries et al., 2015).

4 Emigration of skilled labour and its impact on labour market conditions

It is not possible to fully measure the impact of emigration on the labour market conditions within Ireland. While there has been emigration of skilled labour (see Figure 3), this appears to have been mitigated by quite a substantial inflow of highly skilled migrants. Figure 6 below shows the proportion of immigrants with tertiary education. Prior to the recession, a little over 40 % of immigrants had tertiary education while in 2015 this figure had increased to almost half of all migrants arriving in Ireland with a tertiary education. Ireland has one of the largest proportions of immigrants with tertiary graduates in the EU. This large proportion of highly skilled migrants has helped to offset any potential brain drain from the outflows of high skilled migrants.

Figure 6. Share of Immigrants (aged 15-64) with Tertiary Education in Ireland, 2007-16 (%)



Source: Eurostat[6]

Table 5 shows the distribution of immigrants by country of origin. Just under half (46 %) of all immigrants arriving in Ireland in 2016 were from the EU with most arriving from the UK. Almost 38 % were from the Rest of World which would include the recent share of asylum seekers and refugees. Although immigrants into Ireland are on average highly educated, in some cases, language and cultural barriers around employment and integration exist.

[6] Internet: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=edat_lfs_9911&lang=en

Table 5. Immigration by Country of Origin, 2011 - 16 (%)

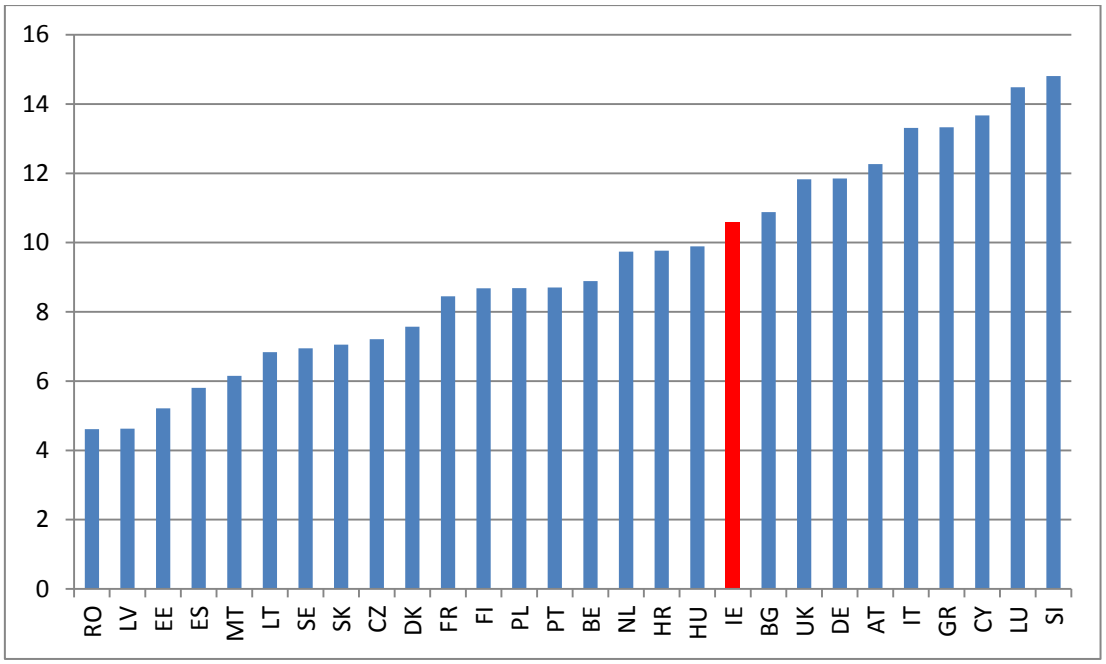
Year Ending April	2011	2012	2013	2014	2015	2016
Origin						
UK	22.3	15.9	17.4	16.0	15.0	17.4
Rest of EU 15	18.2	19.4	18.4	18.5	15.6	15.5
Rest of EU 13	18.4	17.6	21.1	16.2	19.3	13.5
Australia	8.4	9.3	9.5	5.9	4.2	6.9
Canada	2.4	3.0	2.0	2.0	2.3	3.2
USA	6.2	9.3	6.4	4.3	3.2	5.9
Rest of World	24.2	25.4	25.2	37.0	40.4	37.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
N (000s)	**53.3**	**52.7**	**55.9**	**60.6**	**69.3**	**79.3**

Source: CSO, Population and Migration Estimates using the 2016 Census.

To further examine the impact of the emigration of skilled labour on labour market conditions, we begin by considering the skill content of current jobs in Ireland using the 2014 Cedefop European Skills and Jobs Survey (ESJS). This dataset captures information on employees' skill levels and skill utilisation for 28 EU Member States. The survey contains the following question, 'Which of the following best describes the highest level of literacy skills required for doing your job?' - with four possible responses; 1. Basic, 2. Advanced[7], 3. Not Applicable/Literacy Skills Not Required, and 4. Don't Know. There are similar questions relating to numeracy and ICT skills. Figure 7 shows the proportion of jobs at approximately 10 % that are highly skill intensive across all three areas, numeracy, literacy and ICT. This shows that most jobs are not highly skilled which is in line with the EU average at 9 % and Ireland ranks 19th highest out of 28 countries.

[7] It is important to note that that the definition of 'advanced skills' is subjective and may vary across countries. For example, what employees in one country consider to be advanced skills may be considered basic in another country. Nonetheless, the data is informative as it captures intensity of skill use relative to a country specific benchmark. For example, it could be the case that what employees in Ireland consider advanced ICT skills are of a higher level than other countries. The fact that a relatively low percentage of Irish employees consider their jobs to require advanced ICT skills may point to skills underutilisation, whereby employees find their ICT related work tasks to be relatively easy.

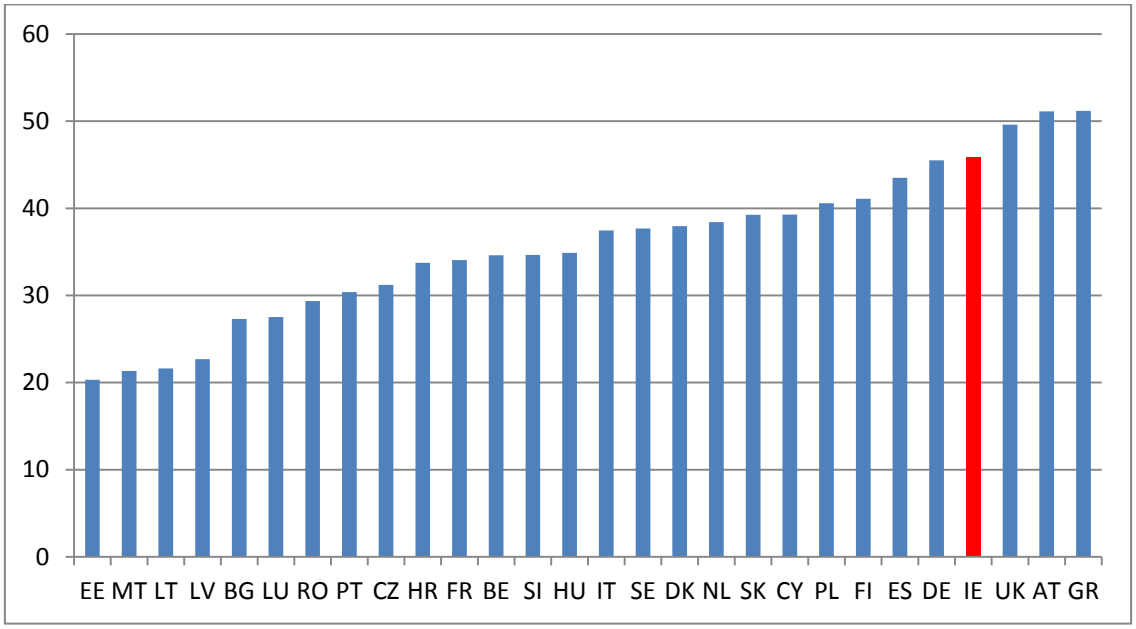
Figure 7. Employees reporting that their job requires advanced Numeracy, Literacy and ICT skills (%)



Source: Cedefop European Skills and Jobs Survey, 2014.

We can further investigate skill underutilisation using a separate question in the ESJS that asks employees, 'Overall, how would you best describe your skills in relation to what is required to do your job?' - with employees responding that their skills are either 1. Higher, 2. Matched or 3. Lower than what is required to do their job. Figure 8 shows the percentage of employees who report that they are overskilled for their job. A relatively high percentage of Irish employees (46 %) consider themselves to be overskilled for their job. This is the fourth highest rate of overskilling out of 28 countries, behind Greece, Austria and the UK.

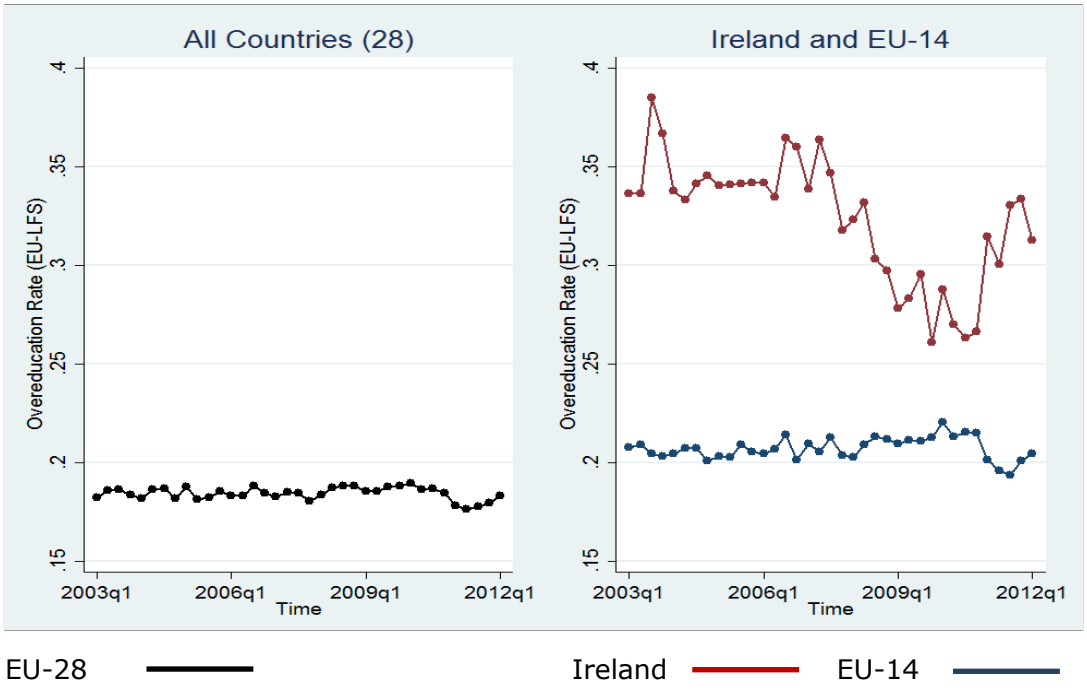
Figure 8. Employees reporting that they are overskilled for their job (%)



Source: Cedefop European Skills and Jobs Survey, 2014.

As shown in Figure 9, the level of over-education in Ireland exceeds the EU average which again is indicative of a high degree of skill underutilisation. Therefore, Ireland is shown to have a highly qualified labour force but a large proportion of jobs are not highly skill intensive and, consequently, many Irish employees are under-used in their current jobs.

Figure 9. Over-education rates, 2003 - 12 (%)



Source: EU Labour Force Survey 2003 – 2012.

Following the Great Recession which saw a big rise in unemployment, the economy is now experiencing positive economic growth. As outlined in Section 2, the National Skills Bulletin (EGSFN, 2016), using vacancy information from IrishJobs.ie and DSP

Jobs Ireland, points to skill shortages of Professionals and Associate Professionals in areas such as ICT, Science and Engineering, Financial Services, and Health. In addition, using the SLMRU Recruitment Agency Survey, they report an increase in the number of references made to difficult to fill vacancies compared to 2014 with the most frequent references made to professional/associate professional roles in IT, engineering, science, health and business areas and multilingual roles such as sales/customer service and supply chain operations.

5 Actions undertaken by Member States to address the outflows of skilled labour

Given that a large proportion of highly skilled immigrants has helped to offset any potential brain drain from the outflows of highly skilled emigrants, there was very little action from the Irish government on this issue. The evidence presented above suggests that there is a high degree of skill underutilisation in Ireland, as seen from the relatively high rates of over-education and over-skilling, and this may be more of a problem than skill shortages.

Specific reference is made to skill shortages in the EU Country Specific Recommendations (CSRs) for Ireland, with the European Commission policy documents highlighting that skill shortages have emerged in certain areas. Skill shortages describe a situation whereby employers are unable to fill vacant posts due to a lack of qualified candidates. The European Commission refer to the National Skills Bulletin 2016 (EGSFN, 2016) highlighting skill shortages in the areas of ICT, engineering, sales, logistics, health, business and finance.[8] The evidence on skill shortages is usually based on employer surveys such as the European Business Survey (EBS), the Manpower Talent Shortage Survey and the European Company Survey (ECS). As highlighted by McGuinness, Pouliakas and Redmond (2018), caution is needed when using these types of employer surveys to inform the policy discussion on skill shortages. This is due to difficulties in disentangling genuine skill shortages, which arise when demand for skills by employers cannot be met by supply at market clearing wage rates, from other types of recruitment difficulties relating to issues such as poor wages, working conditions or locations.

The percentage of employers facing genuine skill shortages may fall well below the percentage of employers reporting recruiting difficulties (Cedefop, 2015). Nevertheless, we can use some of these employer surveys as a guide to assessing the degree of skill shortages across countries. In particular, the 2015 Manpower Talent Shortage Survey asks employers how much difficulty they have filling jobs due to a lack of available talent. It is notable that Ireland is singled out as the country with the lowest level of difficulty (out of 42 countries) filling jobs.

To address skill shortages that may exist in certain niche sectors, the Irish government has attempted to attract and source migrants from non-EEA countries with the skills required to address the deficit. In 2015, 7 625 employment permits were issued, representing a 32 % increase on the previous year. Interestingly, most permits were issued to healthcare workers and those working in the ICT industry.[9]

[8] Internet: https://ec.europa.eu/info/sites/info/files/2017-european-semester-country-report-ireland-en.pdf, Page 36.

[9] Internet: https://dbei.gov.ie/en/Publications/Employment-Permit-Statistics-2016.html

The first Irish diaspora policy, namely, Global Irish, was published in 2015.[10] One of the aims of the initiative is to encourage highly skilled Irish emigrants to return to Ireland. This is expected to work by connecting with the Irish emigrant communities abroad promoting job opportunities and easing the logistic challenges associated with moving back to Ireland.

6 Conclusions

While there has been substantial emigration of skilled labour from Ireland since the Great Recession, this appears to have been offset by quite a substantial inflow of highly skilled immigrants. Prior to the recession, a little over 40 % of immigrants had tertiary education while in 2015 this figure has increased to almost half of all migrants arriving in Ireland. Ireland has one of the largest proportions of immigrants with tertiary graduates in the EU. This large proportion of highly skilled migrants has helped to offset any potential brain drain from the outflows of highly skilled emigrants. The evidence presented here also suggests that there is a high degree of skill underutilisation in Ireland, arising from over-education and over-skilling, and that this may be more of a problem than skill shortages. Immigrants in Ireland have also been shown to face both a pay gap and an occupational gap, suggesting their skills are not being fully used within the Irish labour market (Barrett et al., 2012; Barrett et al., 2016).

The increased elasticity of labour supply arising from the possibility of migration has helped insulate the Irish economy when it was hit by specific shocks in the past and this was also true during the Great Recession. During this time, when the Irish economy was performing particularly poorly, other economies were performing better and many Irish people chose to emigrate rather than face unemployment. Therefore, emigration helped to ease the burden on the social security system by re-emerging as a safety valve to reduce unemployment rates. The availability of the migration mechanism has meant that adjustment to shocks in the economy had tended to come mainly through migration as opposed to wage flexibility.

The unemployment rate in Ireland in the first quarter of 2017 was 6.7 %, its lowest rate in nine years. As the economy improves and the labour market tightens, the issues currently facing the Irish economy are likely very different from those during the Great Recession, when the unemployment rate peaked at 15 % in 2011 and 2012. Furthermore, Redmond and Whelan (2017) consider the possible future sources of skilled labour supply for Ireland by examining the scale and characteristics of those currently unemployed and inactive in the labour market, as well as the ability of Ireland to attract high-skilled migrant workers. The findings suggest that the scale and composition of those currently experiencing unemployment, when compared to the inactive, show greater potential for providing future sources of labour supply for Ireland's growing economy. But this group alone are unlikely to fully meet increased future labour demands. Therefore, as in recent decades in Ireland, immigration may play an important role as a source of skilled labour in a tightening labour market. Furthermore, the education level of immigrants in Ireland is relatively high[11] and there

[10] Internet: https://www.dfa.ie/media/globalirish/global-irish-irelands-diaspora-policy.pdf

[11] In 2016, a breakdown of immigration by education attainment of recently arrived immigrants highlighted that more than half (57.1 %) of the migrants aged 15 and over had a third-level degree or above (CSO, 2016). The share of total migrants in employment with tertiary education in Ireland is third highest relative to the other 27

may be further potential for those who have emigrated to return. This, coupled, with a highly educated pool of unemployed individuals, suggests that Ireland is relatively well positioned to fill high-skilled jobs as they arise. That said, skills shortages may develop in specific occupations or sectors. However, significant net immigration in the future could have indirect effects on the economy by increasing the pressure on the physical infrastructure. The most notable examples would include the housing market and transport infrastructure.

member states, after Malta and Cyprus, at approximately 11 % (Cedefop European Skills and Jobs Survey, 2014).

7 Bibliography

Barrett, A., A. Bergin, J. FitzGerald, D. Lambert, D. McCoy, E. Morgenroth, J. Siedschlag and Z. Studnicka (2015), 'Scoping the Possible Economic Implications of Brexit on Ireland', ESRI Research Series No. 48. Dublin.

Barrett, A., McGuinness, S. and M. O' Brien, (2012), "The Immigrant Earnings Disadvantage across the Earnings and Skills Distributions: The Case of Immigrants from the EU's New Member State". British Journal of Industrial Relations, London School of Economics, vol. 50(3), pages 457-481, 09.

Belfield, C. (2010), "Over-education: What Influence does the Workplace Have?" Economics of Education Review, 29 (2): 236-245.

Congregado, E., J. Iglesias, J.M. Millán and C. Román (2016), "Incidence, Effects, Dynamics and Routes out of Overqualification in Europe: A Comprehensive Analysis Distinguishing by Employment Status", Applied Economics, 48 (5): 411-445.

Cedefop (2015), Skills, Qualifications and Jobs in the EU: The Making of a Perfect Match?: Evidence from Cedefop's European Skills and Jobs Survey, Cedefop Reference Series 3072.

Cedefop (2015b), Skill Shortages and Gaps in European Enterprises, Cedefop Reference Series 3071.

Cedefop (2015c), Tackling unemployment while addressing skill mismatch: Lessons from policy and practice in EU countries, Cedefop Research papers no. 5546.

EGSFN (2016). National Skills Bulletin 2016, A Report by the Skills and Labour Market Research Unit (SLMRU) in SOLAS for the Expert Group on Future Skills Needs. Dublin: Solas. Employment and Social Developments in Europe, 2015. Internet: http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7859&furtherPubs=yes

Green, F. and Y. Zhu (2010), "Overqualification, Job Dissatisfaction, and Increasing Dispersion in the Returns to Graduate Education", Oxford Economic Papers, 62 (4): 740-763.

Hazans, M. (2016), "Migration Experience of the Baltic Countries in the Context of Economic Crisis", in: Martin Kahanec and Klaus F. Zimmermann (eds), Labor Migration, EU Enlargement, and the Great Recession. Berlin - Heidelberg: Springer (2016), 297-344. DOI: 10.1007/978-3-662-45320-9

IMF, Emigration and Its Economic Impact on Eastern Europe, IMF Staff Discussion Note, 2016. Internet: https://www.imf.org/external/pubs/ft/sdn/2016/sdn1607.pdf

Migration Policy Institute reports on specific countries (e.g. Spain, Portugal, Greece), available at: http://www.migrationpolicy.org/rss/taxonomy-term/54

Glynn, I. (2015), "Just One of the "PIIGS" or a European Outlier? Examining Irish Emigration from a Comparative Perspective". Irish Journal of Sociology, 23(2): 93-113.

Humpries, N., McAleese, S., Matthews, A., and Brugha, R. (2015), "Emigration is a Matter of Self-Preservation. The Working Conditions are Killing Us Slowly". Qualitative Insights into Health Professional Emigration from Ireland. Human Resources Health, 13(35): 1-13

Mavromaras, K., P. Sloane and Z. Wei (2012), "The Role of Education Pathways in the Relationship between Job Mismatch, Wages and Job Satisfaction: A Panel Estimation Approach", Education Economics, 20 (3): 303-321.

McGuinness, S. and M. Wooden (2009), "Overskilling, Job Insecurity, and Career Mobility", Industrial Relations, 48 (2): 265-286.

McGuinness, S. and P. Sloane (2011), "Labour Market Mismatch among UK Graduates: An Analysis Using REFLEX Data", Economics of Education Review, 30 (1): 130-145.

McGuinness, S. and L. Ortiz (2016), "Skill Gaps in the Workplace: Measurement, Determinants and Impacts", Industrial Relations Journal, 47 (3): 253-278.

McGuinness, S., Whelan, A. and A. Bergin (2016), "Is There a Role for Higher Education Institutions in Improving the Quality of First Employment?", The BE Journal of Economic Analysis & Policy, 16 (4).

McGuinness, S., Pouliakas, K. and Redmond, P. (2018). 'Skills Mismatch: Concepts, Measurement and Policy Approaches', Journal of Economic Surveys, Vol. 32 (4), pp. 985-1015. Pouliakas, K. (2012), 'The skill mismatch challenge in Europe'. In: European Commission (ed.). Employment and social developments in Europe. Luxembourg: Publications Office, pp. 351-394.

Quintini, G. (2011), "Over-Qualified or Under-Skilled: A Review of Existing Literature", OECD Social, Employment and Migration Working Paper 121.

Roche, William K., Phillip, J. O' Connell and Andrea Prothero (2017), "Austerity and Recovery in Ireland: Europe's Poster Child and the Great Recession".

Redmond P. and A. Whelan. (2017), "Educational Attainment and Skill Utilization in the Irish Labour Market: An EU Comparison", QEC Special Article. Dublin: ESRI.

Sanchez-Sanchez, N. and S. McGuiness (2015), "Decomposing the Impacts of Over-education and Overskilling on Earnings and Job Satisfaction: An Analysis using REFLEX Data", Education Economics, 23 (4): 419-432.

Sloane, P. (2014), "Over-education, Skill Mismatches, and Labor Market Outcomes for College Graduates", IZA World of Labor.

8 Appendix

Table A1. Net Migration 2004-15

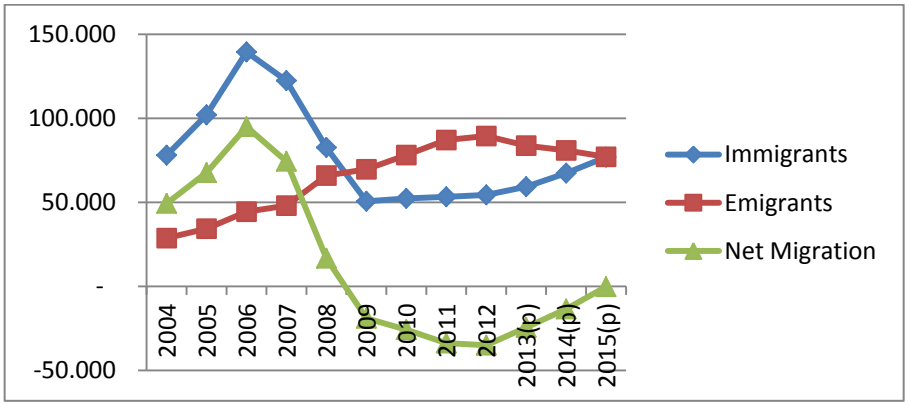
Ireland	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013(p)	2014(p)	2015(p)
Immigrants	78 075	102 000	139 434	122 415	82 592	50 604	52 339	53, 24	54 439	59 294	67 401	76 888
Emigrants	28 675	34 350	44 409	48 040	65 934	69 672	78 099	87 053	89 436	83 791	80 912	77 128
Net Migration	49 400	67 650	95 025	74 375	16 658	-19 068	-25 760	-33829	-34 997	-24 497	-13 511	-240

Source: Eurostat.

Notes: Immigrants are the total number of long-term immigrants arriving into the reporting country during the reference year; emigrants are total number of long-term emigrants leaving from the reporting country during the reference year.

(p) = provisional figures

Figure A1 Net Migration 2004-15



Source: Eurostat.

Notes: Immigrants are the total number of long-term immigrants arriving into the reporting country during the reference year; emigrants are total number of long-term emigrants leaving from the reporting country during the reference year.

(p) = provisional figures


Publications Office